AI Overview

Apple scab is a fungal disease caused by *Venturia inaequalis* that affects the leaves, fruit, and sometimes twigs of apple and crabapple trees, causing olive-green to black spots that can deform the fruit and cause leaves to drop prematurely. The fungus overwinters on fallen leaves, and spores are released in the spring, requiring moisture to infect new growth. Management strategies include removing fallen leaves, pruning for air circulation, using scab-resistant varieties, and applying fungicides to prevent infection.

Symptoms

On leaves:

Small, olive-green, velvety patches that turn brown and may cause premature yellowing and leaf drop.

On fruit:

Small, velvety spots that enlarge and become scab-like, leading to deformities and cracking.

On twigs:

Less common, but can also occur, contributing to the overall weakening of the tree.

How the Disease Spreads

1. **Overwintering:** The fungus survives the winter in fallen leaves on the ground.
2. **Spore Release:** In the spring, with moisture from rain or dew, the fungus releases ascospores.
3. **Infection:** Wind carries spores to young leaves and developing fruit, where they germinate and cause infection if there is sufficient moisture and time.
4. **Secondary Infections:** Conidia, or summer spores, are produced on existing lesions, leading to repeated infections throughout the season.

Management and Prevention

Sanitation:

Rake and destroy fallen leaves in the fall or winter to reduce the amount of fungus overwintering.

Pruning:

Prune trees to improve air circulation and light penetration, which helps leaves dry faster and reduces the favorable environment for the fungus.

Resistant Varieties:

Plant apple cultivars that are resistant to apple scab, such as Liberty, Pristine, or Ariane, to minimize infection risk.

Fungicides:

Apply fungicides in early spring at bud break and continue on a scheduled basis until petal fall, especially during wet weather.

Avoid Overhead Irrigation:

If possible, use methods that water the roots directly rather than using overhead sprinklers, which can increase leaf wetness.